

### IN THE SPECIFICATION

**Please amend paragraph 44 on page 12 as follows:**

[0070] As used herein, the term "neutral to slightly acidic generating extender", i.e., "neutral to slightly acidic generating additive", refers to a metal cation and a corresponding oxyanion (meaning those anions having an oxygen combined with one or more nonmetals). Preferred but not required extenders are sulfur, ~~phosphoreous~~ phosphorus and silicon oxyanion-containing compounds. Of particular interest are sulfur, ~~phosphoreous~~ phosphorus and silicon oxyanion-containing salts. A neutral to slightly acidic generating extender can be used alone or in combination with other components to generate a pH environment of between about 4 to about 8 in a coating composition (with the pH of the coating composition determined by standard methods and concentrations known to those of skill in the art). This environment appears to help enhance and optimize transport of the particular inhibitor species being used, from the coating composition to areas of exposed underlying substrate. A neutral to slightly acidic generating extender can itself be acidic, neutral or basic (e.g.,  $\text{Na}_2\text{HPO}_4$ ) and can also add extender properties to the coating composition. In most instances, a neutral to slightly acidic generating extender does not substantially solubilize in the coating composition, thereby adding volume to the composition. Examples of neutral to slightly acidic generating extenders include, but are not limited to, sulfates, sulfites, silicates, phosphates, phosphites, phosphonates, hydrogen sulfate, hydrogen sulfite, mono and di-hydrogen phosphate, mono and di-hydrogen phosphites and mono hydrogen phosphonate. Further examples include ~~oxyphosphoreous~~ oxyphosphorus compounds, such as cerous phosphate and some Group IIA sulfates, such as calcium sulfate, strontium sulfate and the like. However, it is manifestly intended to include within this term neutral to slightly acidic generating extenders, i.e., additives, which are substantially soluble and therefore do not add volume to the composition. Examples include certain sulfates known in the art to not be useful in adding volume but which have shown surprisingly good results as corrosion inhibitors, such as magnesium sulfate and some Group IA sulfates. The precise amount of neutral to slightly acidic generating extender needed to generate the desired pH in the composition will vary depending the type and amount of binders, solvents, pigments and other additives, including other types of extenders present in the coating composition.

**Please amend paragraph 45, which begins on page 13, as follows:**

[0045] As used herein, the term "acidic generating extender", i.e., "acidic generating additive," refers to a metal cation and a corresponding oxyanion (meaning those anions having an oxygen combined with one or more nonmetals). Preferred but not required extenders are sulfur, ~~phosphoreous~~ phosphorus and silicon oxyanion-containing compounds. Of particular interest are sulfur, ~~phosphoreous~~ phosphorus and silicon oxyanion-containing salts. An acidic generating extender can be used alone or in combination with other components to generate a pH environment of less than between about 2 to about 4 in a coating composition (with the pH of the coating composition determined by standard methods and concentrations known to those of skill in the art). This environment appears to help enhance and optimize transport of the particular inhibitor species being used, from the coating composition to areas of exposed underlying substrate. An acidic generating extender can itself be acidic or neutral and can also add extender properties to the coating composition. Examples of compounds that are capable of generating a pH environment of between about 2 to about 4 include, but are not limited to certain hydrogen sulfates such as calcium hydrogen sulfate, calcium hydrogen phosphate and calcium di-hydrogen phosphate. Again, it is manifestly intended to include within this term acidic generating extenders that are substantially soluble, thereby not adding volume to the composition. It is possible that the same compound can be properly categorized as both an "acidic generating extender" and a "neutral to slightly acidic generating extender", since it is capable of generating either environment. One example of a compound that can generate either environment includes, but is not limited to, calcium hydrogen phosphate. Additionally, the precise amount of acidic generating extender needed to generate the desired pH in the composition will vary depending on the type and amount of binders, solvents, pigments and other additives present.

**Please amend Paragraph 70, beginning on page 20, as follows:**

[0070] Rare earth compounds useful in the present invention include, but are not limited to, rare earth oxides, mixed oxides, solid solution oxides, hydrated oxides, salts, triflates, and complexes, such as rare earth complexes using ethylenediamine tetraacetic acid, organic-based ionic exchange resins, etc., and the like. The coating can additionally contain between

**PRELIMINARY AMENDMENT**

Serial Number: 10/758973

Filing Date: January 16, 2004

Title: CORROSION RESISTANT COATINGS CONTAINING CARBON

---

**Page 4**

Dkt: 423.021US1

about 0.1 to about 95 wt% of a rare earth compound co-inhibitor. (In this instance the wt% is in reference to the total wt% of all co-inhibitors present in the coating). In one embodiment, the coating contains between about 0.4 to about 26 wt%, of a rare earth compound co-inhibitor. In one embodiment, the rare earth compounds are based on any of the lanthanide series. In one embodiment the rare earth compounds are selected from the group consisting of praseodymium, cerium and terbium. Praseodymium has provided particularly good results. (See Example 4). In other embodiments, any of the rare earth compounds described in U.S. Patent Application Serial No. ~~xx/xxx,xxx~~, 10/346,374, entitled, "Corrosion Resistant Coatings," filed on January 16, 2004, which is hereby incorporated by reference in its entirety, are used.

Please delete the first Table 14 and accompanying footnotes, appearing on pages 49-50:

Table 14. Enhanced Self-priming Topecoat Formulations-

Sample Number	*Defl Coating	**Corrosion Inhibitor/Weight Percent	**Color Pigment/Weight Percent	***Extender/ Weight Percent	2000 Hr Salt Fog Rating
139-057(A)	97GY088	Pr <sub>2</sub> O <sub>3</sub> CaSO <sub>4</sub> ·2H <sub>2</sub> O	12.89 Titanium Dioxide 47.74 Iron Yellow Oxide Carbazole Violet Phthalate Blue	13.89 0.17 HSF 0.01 0.03	1A
139-059(A)	97GY089	Pr <sub>2</sub> O <sub>3</sub> CaSO <sub>4</sub> ·2H <sub>2</sub> O Pr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> Pr <sub>6</sub> O <sub>11</sub>	2.14 Titanium Dioxide 42.45 Iron Yellow Oxide 0.85 Carbon Black 16.98 Phthalate Blue	13.26 0.18 HSF 0.10 0.03	1A
139-058(A)	97GY089	Pr <sub>6</sub> O <sub>11</sub> CaSO <sub>4</sub> ·2H <sub>2</sub> O	23.62 Titanium Dioxide 40.03 Iron Yellow Oxide Carbazole Violet Phthalate Blue	12.83 0.16 HSF 0.09 0.03	2A
148-079(A)	97GY089	Pr <sub>2</sub> O <sub>3</sub> CaSO <sub>4</sub> ·2H <sub>2</sub> O Pr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> Pr <sub>6</sub> O <sub>11</sub>	2.49 Titanium Dioxide 48.97 Iron Yellow Oxide 0.99 Carbazole Violet 19.58 Carbon Black Phthalate Blue	10.25 0.13 HSF 0.01 0.07 0.03	1A

PRELIMINARY AMENDMENT

Serial Number: 10/758973

Filing Date: January 16, 2004

Title: CORROSION RESISTANT COATINGS CONTAINING CARBON

Page 6

Dkt: 423.021US1

Sample Number	*Defl Coating	**Corrosion		**Color-Pigment/Weight Percent	***Extender/Weight Percent	2000 Hr Salt Fog Rating
		Inhibitor/Weight Percent	Inhibitor/Weight Percent			
148-	97GY128	Pr <sub>2</sub> O <sub>3</sub>	1.54	Titanium Dioxide	18.85 Lo-Vel® 35.69	3A
097(A)		CaSO <sub>4</sub> ·2H <sub>2</sub> O	30.63	Iron Yellow Oxide	0.24 HSF	
		Pr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>	0.61	Carbazole-Violet	0.01	
		Pr <sub>6</sub> O <sub>14</sub>	12.25	Carbon-Black	0.13	
				Phthalate-Blue	0.05	
139-	97GY089	Pr <sub>2</sub> O <sub>3</sub>	2.14	Titanium Dioxide	13.26 Lo-Vel®	1A
059(A)		CaSO <sub>4</sub> ·2H <sub>2</sub> O	42.45	Iron Yellow Oxide	0.18 HSF	
		Pr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>	0.85	Carbon-Black	0.10	
		Pr <sub>6</sub> O <sub>14</sub>	16.98	Phthalate-Blue	0.03	
139-	97GY089	Pr <sub>2</sub> O <sub>3</sub>	2.14	Titanium Dioxide	13.26 Lo-Vel®	3A
059(A)		CaSO <sub>4</sub> ·2H <sub>2</sub> O	42.45	Iron Yellow Oxide	0.18 HSF	
		Pr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>	0.85	Carbon-Black	0.10	
		Pr <sub>6</sub> O <sub>14</sub>	16.98	Phthalate-Blue	0.03	

\* Defl Coating number refers to product identification number of coating formulation, available from Defl Inc., having offices in Irvine, California.

\*\* Weight percent of inhibitor and pigment is based on the total weight percent of fully-catalyzed and sprayable topecoat.

\*\*\* Weight percent of extender is based on the total weight percent of fully-catalyzed and sprayable topecoat. Lo-Vel® HSF, available from PPG Industries, having offices in Pittsburgh, PA.